

# इंटरनेट

# मानक

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“Step Out From the Old to the New”

IS 12098 (1987): Rim wheels for pneumatic tyres for animal drawn vehicles [TED 7: Automotive Tyres, Tubes and Rims]



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“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”



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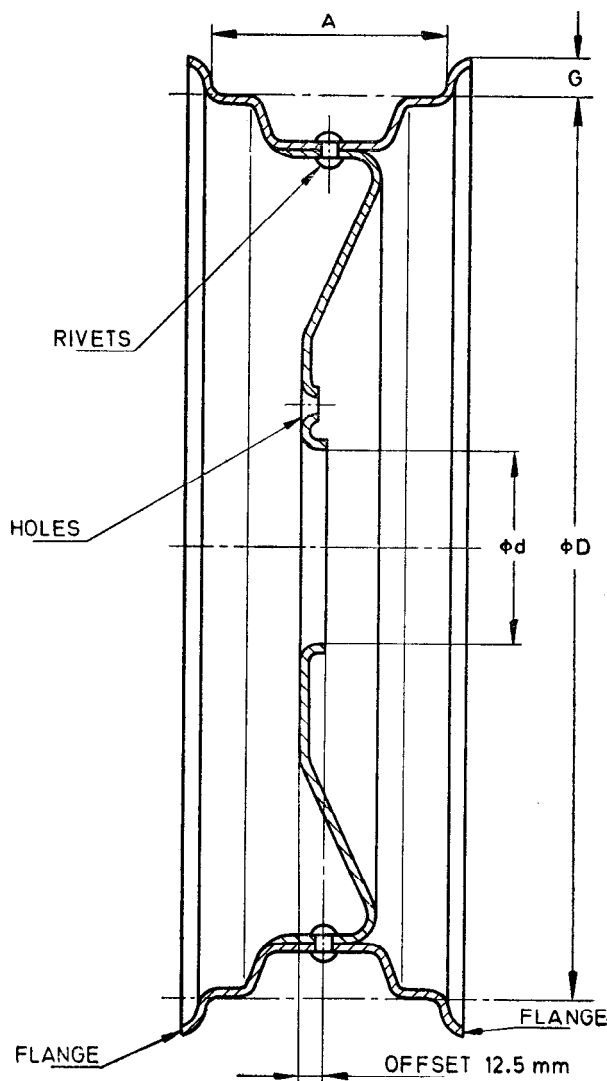


## Indian Standard

# SPECIFICATION FOR RIM WHEELS FOR PNEUMATIC TYRES FOR ANIMAL DRAWN VEHICLES

**1. Scope** — Specifies requirements for rim wheels suitable for use with pneumatic tyres on animal drawn vehicle.

**2. Nomenclature** — Shall be as given in Fig. 1.



$A$  = Specified rim width

$G$  = Rim flange height

$D$  = Specified rim diameter  
(see Fig. 2, 3 and 4)

$d$  = Specified hub bore

FIG. 1 NOMENCLATURE OF ADV RIM WHEELS

**3. Type** The rim wheels shall be made of two parts, a rim of the drop centre type affixed to a central disc to fit on the hub.



Nominal Rim Dia Code	Specified Rim Dia	Taping Dia	Taping Circumference +0.0 -2.4
19	484.2	484.2	1521.2

FIG. 4 RIM CONTOUR 5'00 WELL-BASE FOR ANIMAL DRAWN VEHICLES (ADV)

- a) Nominal rim width code,
- b) Rim profile type, and
- c) Nominal rim diameter code.

5'00 × 19 DC ( also called 'WB', well base type )

**7. Recommended Rim-Type Combinations** — The rims shall be selected according to load carrying capacity suiting to tyres and recommended combinations may be as follows:

<i>Rim Size Designation</i>	<i>Recommended Tyre Size Designation</i>
3'00 × 19	5'00 — 19
3'62 × 19	6'00 — 19
5'00 × 19	7'00 — 19
	8'00 — 19
3'62 × 20	6'00 — 20

**8.1** As agreed to between the manufacturer and the purchaser, the outer rim shall be made from skelp having any of the thickness of 3'15, 3'5, 4 or 5 mm and the central disc shall be made from 5 mm thick plate.

**8.2** Hub portion of the disc shall have 5 holes each of 17 mm diameter, equally spaced on 165 mm pitch circle diameter. It shall have a bore of 109 mm. It shall conform to the requirements of IS : 4930-1968 'Guide for axle assembly for animal drawn vehicles'.

**8.3** Off-set shall be made in the disc to suit the cart track that is central plate face line shall have a displacement of 12.5 mm towards inner side than the centre line of the outer rim.

**8.4** A valve hole of 13.0 mm ( $\pm 0.2$ ) diameter shall be punched at the centre of one side of the rim well and located at the outer side of the rim-wheel. Valve hole shall be free from burrs.

**8.5** Lift, which is the difference between the high and low point measured at any location on each tyre seat, when truly mounted and revolved, shall not exceed 4 mm.

**8.6** Wobble, which is the lateral variation measured on the vertical inside face of the flange, shall not exceed 4 mm.

## **9. Rim Contour and Other Requirements**

**9.1** The outer rim portion shall be press-fitted with the central disc and rivetted with 12 rivets of 6.5 mm or 8 rivets of 9.5 mm diameter equally spaced on the periphery.

**9.2** Rim contour shall conform to Fig. 2, 3 or 4 as applicable, to suit the different sizes of tyres of the recommended nominal size designations.

**9.2.1** Starting with the highest point of the flange of rims, the shaping of the flange contour towards the outer part of the rim is left to the manufacturer, but any increase in width of the rim flanges above the minimum width shall be located lower than the highest point of the flange in order to facilitate tyre mounting. The edge of the flange shall be rounded off.

## **10. Finish**

**10.1** The rim shall have a smooth finish. It shall be painted with suitable synthetic enamel paint after proper phosphating and with an under coating of the metal primer.

## **11. Marking**

**11.1** The rim/wheel shall be durably and legibly marked with the following:

- a) Manufacturer's name or recognized trade-mark,
- b) Rim size designation,
- c) Manufacturer's code, and
- d) Country of origin ( optional ).

**11.2** *Certification Marking* — Details available with the Bureau of Indian Standards.

## **EXPLANATORY NOTE**

Though with the development of technology fast moving vehicles are replacing animal drawn vehicles ( ADV ), the latter still finds its utility particularly in rural areas.

This Indian Standard has been prepared in order to provide interchangeability in ADV rim/wheels in a size regardless of 'make' or brand.